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# Transforming Africa's Agriculture through Enhancing commercialization of Livestock Research Products

The case of Poultry (Mother Brooder Units) Technology

By : *FARA TAAT Capacity Development and Technology Outreach and Livestock Value Chain Compact*



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## **Forum for Agricultural Research in Africa (FARA)**

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## **About FARA**

The Forum for Agricultural Research in Africa (FARA) is the apex continental organisation responsible for coordinating and advocating for agricultural research-for-development. (AR4D). It serves as the entry point for agricultural research initiatives designed to have a continental reach or a sub-continental reach spanning more than one sub-region.

FARA serves as the technical arm of the African Union Commission (AUC) on matters concerning agricultural science, technology and innovation. FARA has provided a continental forum for stakeholders in AR4D to shape the vision and agenda for the sub-sector and to mobilise themselves to respond to key continent-wide development frameworks, notably the Comprehensive Africa Agriculture Development Programme (CAADP).

FARA's vision is to "Reduced poverty in Africa as a result of sustainable broad-based agricultural growth and improved livelihoods, particularly of smallholder and pastoral enterprises" its mission is the "Creation of broad-based improvements in agricultural productivity, competitiveness and markets by strengthening the capacity for agricultural innovation at the continental-level"; its Value Proposition is the "Strengthening Africa's capacity for innovation and transformation by visioning its strategic direction, integrating its capacities for change and creating an enabling policy environment for implementation". FARA's strategic direction is derived from and aligned to the Science Agenda for Agriculture in Africa (S3A), which is in turn designed to support the realization of the CAADP vision.

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## Background

The Forum for Agricultural Research in Africa (FARA), the African Forum for Agricultural Advisory Services (AFAAS), IITA, International Livestock Research Institute had organized a technical webinar on August 19, 2020, as part of the Technologies for African Agricultural Transformation (TAAT) Program of the Feed Africa initiative funded by the African Development Bank (AfDB).

FARA is leading the enabler compact for Capacity Development and Technology Outreach (CDTO) complementing the commodity compacts, such as the Livestock Value chain led by the International Livestock Research Institute by acting as a process facilitator in the delivery of the proven technologies at scale.

FARA has so far done so through training of trainers (TOT) for Innovation Platforms (IPs) facilitators to help establish Innovation Platform (IP) as the main model for implementing TAAT. In addition, the CDTO Enabler Compact is supporting the compacts develop modular outreach materials for scaling of technologies within these local innovation platforms. Instruments have also been developed to assist the IPs identify their capacity development needs.

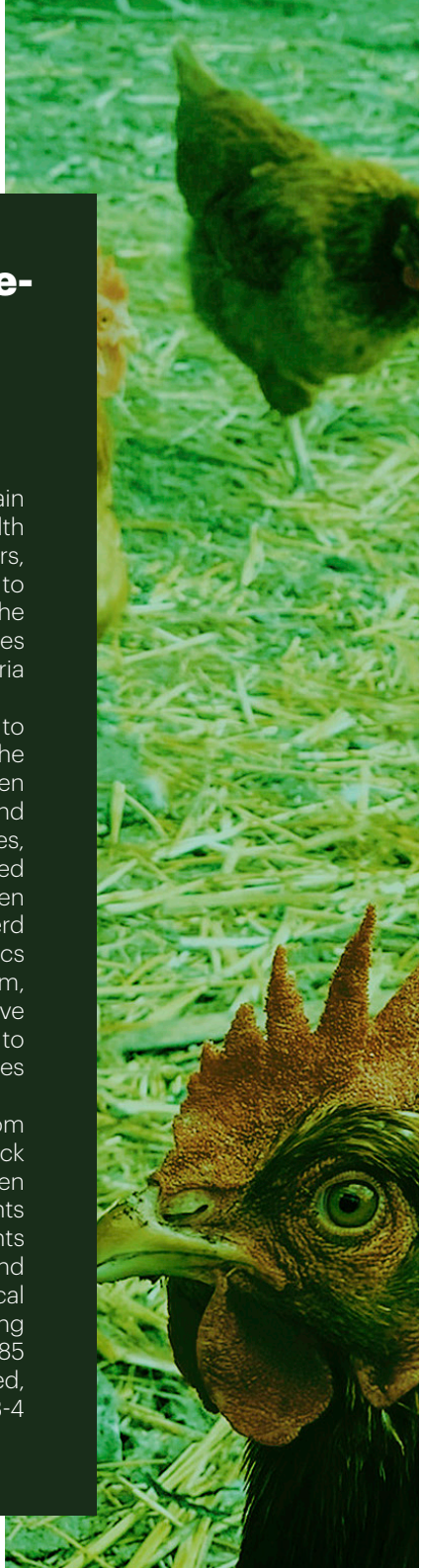
## Brief overview of the Livestock Value chain under TAAT

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The objectives of the TAAT Livestock value chain activities are to reduce poverty, improve health and wellbeing of the producers and users, enhance gender equality, and contribute to improved household nutrition security etc. The livestock value chain technology delivery activities have been implemented in Ethiopia, Mali, Nigeria and Kenya.

In order to achieve the set objectives and to boost production, productivity and quality of the sector, different proven technologies have been disseminated to users. These include: Sheep and goats fattening, improved forage feeds resources, High Quality Cassava Peels mash, and Improved Poultry Genetics and Distribution. These proven technologies contribute to improving herd production, improved small ruminants genetics through the community-based breeding program, achieve quality management practices, improve access to vaccines and veterinary services to have healthy herds and create job opportunities for youths.

Some of the solid achievements gained from Livestock Compact are: reached 544,188 livestock farmers directly and through media with proven livestock technologies, 32,700 small ruminants vaccinated against Peste des Petits Ruminants (PPR), access to 3,500 Tons of dual purpose and forage feeds by farmers, promote youth technical and business training in poultry mother brooding units, employment opportunities created for 485 Youths, Sheep fattening technology developed, more than 4,000 rams fattened and sold (3-4





rounds fattening) and scaling up training on livestock technologies for 25 EAFF members across 8 countries. In addition, Training

support was given to the Agricultural Industry Associations in Ethiopia, Uganda, Tanzania, Sudan, South Sudan, Eritrea and Djibouti.

## **Business Opportunities Identified in the Poultry Value Chain**

Chicken production is an important economic activity in many African countries. Small scale low capital start-up enterprise can be undertaken at smallholder traditional and commercial levels to enhance food security and income. This sector has a huge potential towards commercialization especially for women and youths. There are many business opportunities in the poultry value chain. These include breeder farm/hatchery, aggregation, advisory services, broilers, Egg layers, feed, health, brooder unit, and value addition.



*Figure 1: Business opportunities in poultry production for commercialization*

# The technology with a potential for commercialization

Mother Brooder Unit (MBU) is a technology for rearing improved Day-Old Chicks (DOC), under intensive system, and improved health, nutrition, housing etc. management for approximately 1-30 days after hatching. It helps to enhance productivity of the chickens and well-being of the people who rely on poultry production for their livelihood. The MBU is one of the technologies promoted by

the livestock compact with great potential for commercialization.

The most critical stage with high risks in managing commercial poultry is the care of DOCs, especially for disease prevention and control. This opens an opportunity for entrepreneurs who are willing to start a business in chicken brooder units.



Figure 2: Rearing young chickens in a brooder house (Ethiopia) Photo Credit: Ethiochicken and Niyi Adediran (ILRI)

## A business path-way towards commercialization

The poultry farm is a business venture that could be done at individual and group level. The business path-ways and modalities to engage women and youth in poultry farm business could be done through establishing linkage with local Microfinance institution, service providers, Livestock Research institutions, private poultry breeder farm enterprises/hatchery, and the national agricultural/Livestock Department office to get access to start up inputs and

services such as DOCs, feeds, vaccines and technical training. Through these activities, the Compact creates agribusiness opportunities for women and youths. Apart from the technology package, enabling environment to be put in place include: micro finance services, strong extension and advisory services, establishing market linkage with local super markets, and business skills development training. When combined, these will enhance the benefits

of poultry farming and its prospect for commercialization. In order to realize and exploit the potential, a framework for business partnership and collaboration should be in place among different private and public sector actors.

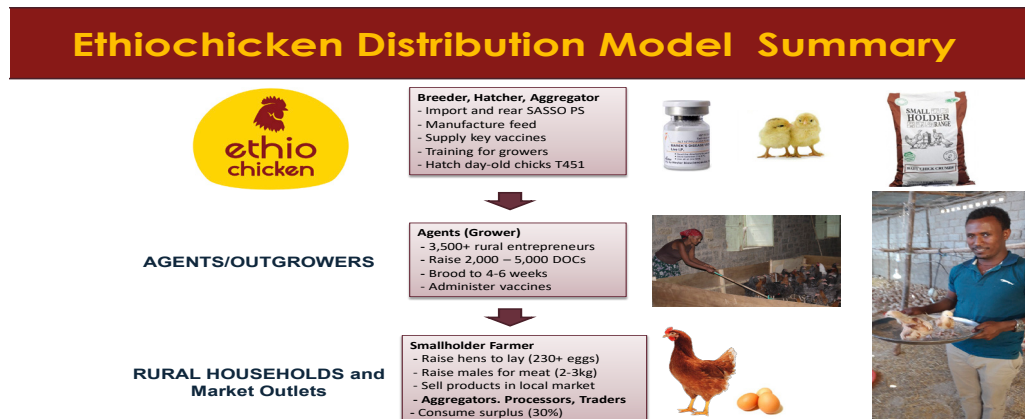


Figure 3: Ethiochicken improved chicken commercialization model and pathways

The Ethiochicken Company in Ethiopia have about 3,500 rural freelance entrepreneurs (the agents) who collect DOCs from the company's hatchery and have received technical training in managing DOCs using the Mother Brooder Unit technique. The Ethiochicken model describes the typical processes by which poultry breeders and hatchers import and rear tropically adapted chicken breeds such as the SASSO, Kuroiler, Bovan Brown, white Leghorn, etc. or improved local breeds for distribution to producers to produce and hatch the egg for DOCs. The company also produce chicken feed, import vaccines and provide training to poultry entrepreneurs. Individually these agents raise 2,000 – 5,000 DOCs for up to 4-6 weeks.

They also receive paid feed and vaccines services from Ethiochicken. The brooded chickens are then sold directly, or through government and development NGO's to smallholder farmers in the communities and other producers for further rearing to mature weight as broilers. Where desired pullets (Layer chickens) are also reared to 18-20 weeks before selling. Hybrid layer hens can lay up to 230 eggs per year while broilers for meat can attain 2-3kg under improved extensive management before sales to consumers. These smallholder farmers will sell the chickens and eggs in local market or to aggregators, processors and traders.



# Experience from the field and beneficiaries

This information is needed by new entrants to poultry production and other practitioners intending to engage in poultry production and vaccination for DOC during chicken brooding. Women and youth Agripreneurship will also be benefited. The experience from the field witnessed by Ms. Tigist from Ethiopia is showing how she benefited from poultry farm.

Ms. Tigist Dachew (left), a 30 years old young woman poultry farmer, living in Bishoftu town in the Oromia regional state, Ethiopia. Tigist had worked as a poultry attendant and had the dream to own a poultry farm, but she did not have the financial resources to start it. Then, she went to work as a house maid in Lebanon for eight years before returning home, with some funds, to realize her dream. She wanted to start farming. Although she had little knowledge of poultry production, she did not have access to land to start the business. She was introduced to the Ethiochicken Poultry Farm who motivated her to start her own poultry farm. She received the training opportunity on poultry farming and business skills from the project. These encouraged her to look for the land and after the training, she started with a small flock of 500 DOCs. After a short period of time, her

farm size has grown close to 2,000 DOCs per round of brooding. She has expanded her farm from DOC to production of Broilers and Layers.

Tigist reported the benefits she got from poultry farming. Some of these include: stabilized income to support herself and family of three and improved nutritional status of the household. She earned an average annual income of \$4,688.00 and was able to pay her children's school fees. Although she mentioned the huge benefit of poultry farming, she also reported that unpredictable market price and the intensive nature of the business, which demands high labour input are the challenges she has faced in the poultry business. One participant during the webinar session has proposed a practical solution of establishing market linkage with local supermarkets as one way to deal with a market challenges. The benefit gained from the poultry farm also inspired her friend (left) to engage in the same business.

Finally, Tigist shared her testimony by saying *"...the poultry business has saved me from a miserable experience of living in exile, separated from my family. Now I am living a happy life with my family, my income from the farm increasing from time to time".*



## Contact address:

If you are interested to start your business in poultry farming through Mother Brooder Units, please contact the following institutions and people at the International Livestock Research Institute (ILRI):

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Dr. Getachew Feye, TAAT Livestock Technology Transfer Officer, ILRI [feye@cgiar.org](mailto:feye@cgiar.org)

If you want to learn more about poultry farming please visit the following sites:

<https://www.ilri.org/publications/guide-chicken-health-and-management-ethiopia-farmers-and-development-agents>

<https://blog.agrihomegh.com/major-chicken-diseases/>

<https://www.youtube.com/watch?v=DN7evnDkJHM>

<https://www.youtube.com/watch?v=CmZmJJe3gdc>

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